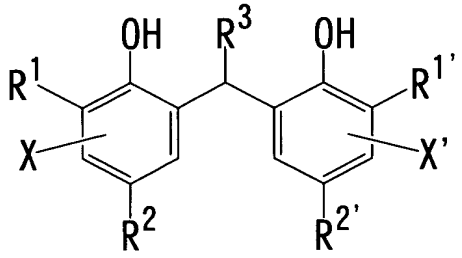
WHAT IS CLAIMED IS:

1. An image forming method comprising: using an image forming apparatus to form an image on a photothermographic material comprising at least a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent, and a binder, on at least one surface of a support, wherein the reducing agent is at least one selected from compounds represented by the following formulae (R1) or (R2), and a line speed of thermal development is 20 mm/sec or higher:

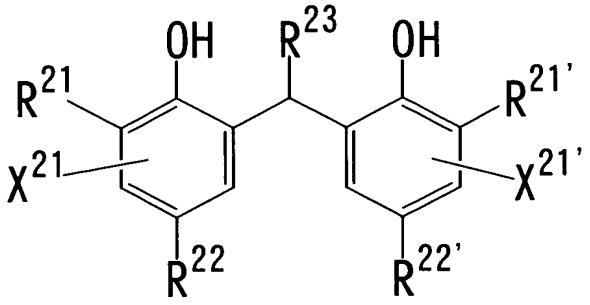
Formula (R1)



wherein, R^1 and $R^{1'}$ each independently represent an alkyl group having 1 to 20 carbon atoms; R^2 and $R^{2'}$ each independently represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring; R^3 represents a substituent which can form a 3- to 7-membered ring which includes atoms selected from carbon, oxygen, nitrogen, sulfur and phosphorus atoms; and X and X' each independently

represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring;

Formula (R2)



wherein, R^{21} and $R^{21'}$ each independently represent an alkyl group having 1 to 20 carbon atoms; R^{22} and $R^{22'}$ each independently represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring; R^{23} represents an alkenyl group, or an alkyl group having a substituent having an unsaturated bond; X^{21} and $X^{21'}$ each independently represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring.

2. An image forming method according to claim 1, wherein the line speed of thermal development is 24 mm/sec or higher.

3. An image forming method according to claim 1, wherein the line speed of thermal development is 28 mm/sec or higher.

4. An image forming method according to claim 1,

wherein the photothermographic material comprises a development accelerator.

5. An image forming method according to claim 1, wherein at least one of R^1 and $R^{1'}$ in formula (R1) or at least one of R^{21} and $R^{21'}$ in formula (R2) is a secondary or tertiary alkyl group.

6. An image forming method according to claim 1, wherein a hue-angle of the image at an optical density of 1.0 is from 180° to 270°.

7. An image forming method according to claim 1, wherein the photothermographic material has a silver coating amount of 0.9 g/m^2 to 1.9 g/m^2.

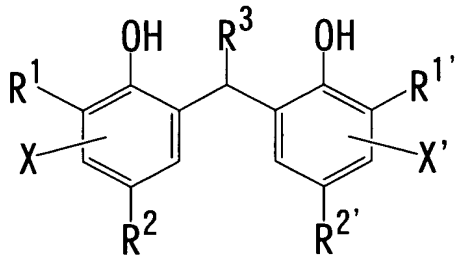
8. An image forming method according to claim 1, wherein thermal development is carried out for 6 seconds to 14 seconds.

9. An image forming method according to claim 1, wherein a development efficiency at a maximum density part is 70% or more.

10. An image forming method comprising: using an image forming apparatus to form an image on a photothermographic material comprising at least a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent, and a binder, on at least one surface of a support, wherein the reducing agent is at least one selected from compounds

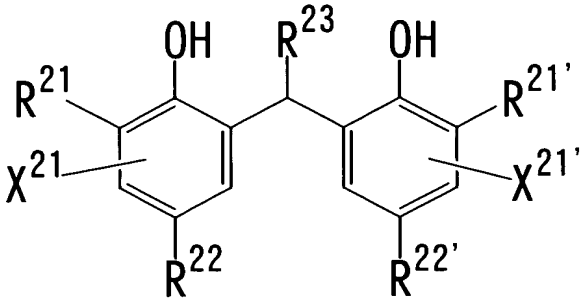
represented by the following formulae (R1) and (R2), and the image is thermally developed and outputted within 15 minutes after the image forming apparatus is activated:

Formula (R1)



wherein, R^1 and $R^{1'}$ each independently represent an alkyl group having 1 to 20 carbon atoms; R^2 and $R^{2'}$ each independently represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring; R^3 represents a substituent which can form a 3- to 7-membered ring which includes atoms selected from carbon, oxygen, nitrogen, sulfur and phosphorus atoms; and X and X' each independently represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring;

Formula (R2)



wherein, R^{21} and $R^{21'}$ each independently represent an alkyl group having 1 to 20 carbon atoms; R^{22} and $R^{22'}$ each independently represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring; R^{23} represents an alkenyl group, or an alkyl group having a substituent having an unsaturated bond; X^{21} and $X^{21'}$ each independently represent a hydrogen atom, or a substituent which can be substituted for a hydrogen atom on a benzene ring.

11. An image forming method according to claim 10, wherein at least one of R^{1} and $R^{1'}$ in formula (R1) or at least one of R^{21} and $R^{21'}$ in formula (R2) is a secondary or tertiary alkyl group.

12. An image forming method according to claim 10, wherein a hue-angle of the outputted image at an optical density of 1.0 is from 180° to 270°.

13. An image forming method according to claim 10, wherein the photothermographic material has a silver

coating amount of 1.0 g/m^2 to 1.9 g/m^2.

14. An image forming method according to claim 10, wherein thermal development is carried out for 6 seconds to 14 seconds.

15. An image forming method according to claim 10, wherein the image forming apparatus has a thermal developing portion provided with one or more plate-type heaters.

16. An image forming method according to claim 15, wherein temperatures of the plate-type heaters can be independently controlled.

17. An image forming method comprising: using an image forming apparatus to form an image on a photothermographic material which comprises at least a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent, and a binder, on at least one surface of a support, and which comprises at least one selected from compounds represented by the following formulae (1a), (1b) and (1c), wherein the image is outputted within 15 minutes after the image forming apparatus is activated:

Formula (1a)

$R\text{-}Y_1\text{-}(L_1)_{n1}\text{-}CX_1X_2X_3$

wherein, X_1, X_2 and X_3 each independently represent a hydrogen atom or a substituent, provided that at least

one of X_1, X_2 and X_3 is a halogen atom; L_1 represents a sulfonyl group; n1 represents 0 or 1; Y_1 represents $-N(R_1)-$, a sulfur atom, an oxygen atom, a selenium atom, or $-(R_2)C=C(R_3)-$; R_1, R_2 and R_3 each independently represent a hydrogen atom or a substituent; and R represents a hydrogen atom, a halogen atom, an aliphatic group, an aryl group or a heterocyclic group;

Formula (1b)

$$R-Y_2-L_2-CX_1X_2X_3$$

wherein, X_1, X_2 and X_3 each independently represent a hydrogen atom or a substituent, provided that at least one of X_1, X_2 and X_3 is a halogen atom; L_2 represents a carbonyl group or a sulfinyl group; Y_2 represents $-N(R_1)-$, a sulfur atom, an oxygen atom, a selenium atom, or $-(R_2)C=C(R_3)-$; R_1, R_2 and R_3 each independently represent a hydrogen atom or a substituent; and R represents a hydrogen atom, a halogen atom, an aliphatic group, an aryl group or a heterocyclic group; and

Formula (1c)

$$R-Y_3-(L_3)_{n2}-CX_1X_2X_3$$

wherein, X_1, X_2 and X_3 each independently represent a hydrogen atom or a substituent, provided that at least one of X_1, X_2 and X_3 is a halogen atom; L_3 represents a sulfonyl group, a carbonyl group or a sulfinyl group; n2 represents 2 or 3; Y_3 represents a single bond, $-N(R_1)-$,

a sulfur atom, an oxygen atom, a selenium atom, or -$(R_2)C=C(R_3)$-; R_1, R_2 and R_3 each independently represent a hydrogen atom or a substituent; and R represents a hydrogen atom, a halogen atom, an aliphatic group, an aryl group or a heterocyclic group.

18. An image forming method according to claim 17, wherein a hue-angle of the outputted image at an optical density of 1.0.is from 180° to 270°

19. An image forming method according to claim 17, wherein the photothermographic material has a silver coating amount of 1.0 g/m^2 to 1.9 g/m^2.

20. An image forming method according to claim 17, wherein thermal development is carried out for 6 seconds to 14 seconds.

21. An image forming method according to claim 17, wherein the image forming apparatus has a thermal developing portion provided with one or more plate-type heaters.

22. An image forming method according to claim 21, wherein temperatures of the plate-type heaters can be independently controlled.